

Date: Wed, 3 Feb 93 01:08:30 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #159
To: Info-Hams

Info-Hams Digest Wed, 3 Feb 93 Volume 93 : Issue 159

Today's Topics:

 4N5 Callsigns
 Advanced class material, has it changed much
 ALINCO DJ-580T Question **SOLUTION**
 ANS Bulletins
 circuit modeling
 Daily Solar Geophysical Data Broadcast for 02 February
 FM Broadcast SCA (was ?)
 Please subscribe Carl Gottsmann to Info-Hams, Tnx,& 73!
 QRP->VFO
 Why won't any Deleware station QSL?

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 2 Feb 93 11:56:13 EST
From: elroy.jpl.nasa.gov!sdd.hp.com!ncr-sd!ncrcae!ncrhubb!ncrgw2!psinntp!
arrl.org@ames.arpa
Subject: 4N5 Callsigns
To: info-hams@ucsd.edu

According to a US Postal Bulletin dated 8-6-92, "Mail destined to the
former Yugoslav republic of Macedonia may be addressed Former Yugoslav
Republic of Macedonia. Updated addressing instructions will be issued
when the republic adopts a final recognized name."

That's what the PO says...

NNNN

Date: 3 Feb 1993 01:01:37 GMT
From: agate!spool.mu.edu!howland.reston.ans.net!zaphod.mps.ohio-state.edu!
menudo.uh.edu!BUDS1.baylor.edu!BUDS1.baylor.edu!usenet@ames.arpa
Subject: Advanced class material, has it changed much
To: info-hams@ucsd.edu

I have a 1988 copy of the ARRL study book for the Advanced license.
I am ready to start studing for my advanced license and I was wondering
how much of the material has changed since then. Is most of the
material still valid or should I purchase a new book?

- David Severson
Baylor University
N5QIW

Date: Tue, 2 Feb 1993 21:28:52 GMT
From: mvb.saic.com!unogate!news.service.uci.edu!usc.edu!howland.reston.ans.net!
usenet.ins.cwru.edu!news.yzu.edu!malgudi.oar.net!ucbeh.san.uc.edu!att-out!cbnewsd!
cbnewsc!rats@network.UCSD.EDU
Subject: ALINCO DJ-580T Question **SOLUTION**
To: info-hams@ucsd.edu

After talking to the folks at ALINCO, it is now apparent that the
DJ-580T VFO Programmed Scan function only works outside of the
ham bands _IF_ the aircraft band modification is made. Also, they
pointed out that when programming the Upper/Lower limits for the
VFO Programmed Scan function, the "P1" and "P2" should be flashing,
which means they will accept being written into.

Date: 2 Feb 93 23:45:47 GMT
From: news-mail-gateway@ucsd.edu
Subject: ANS Bulletins
To: info-hams@ucsd.edu

SB SAT @ AMSAT \$ANS-030.01
SAREX INFO FOR '93: PART I

HR AMSAT NEWS SERVICE BULLETIN 030.01 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 30, 1993 BID:\$ANS-030.01
TO ALL RADIO AMATEURS BT

KA3HDO Provides The Latest SAREX Information For '93: Part I

The Shuttle Amateur Radio Experiment (SAREX) team has been working diligently behind the scenes to provide another "frequent flyer" year for SAREX operations. Currently, three SAREX missions are manifested to be flown in 1993. In addition, there is a distinct possibility that two additional flights may be manifested later in the year. If this occurs, we will have five SAREX flights this year!

Three back-to-back SAREX missions are currently slated in 1993. These include the STS-55 space shuttle Columbia flight which will carry the German Spacelab module into orbit, the STS-56 shuttle Discovery flight carrying the Atmospheric Laboratory for Applications and Sciences (ATLAS-2) spacelab payload and the STS-57 shuttle Endeavour flight which will carry the new spacehab module. The table listed below summarizes the three SAREX flights for 1993. STS-55 and STS-57 flights will be in a low (28.5 deg) inclination orbit. High latitude cities in the U.S. and Europe will have low elevation passes (<10 deg) for this mission. STS-56 will be in a high (57o) inclination orbit. For this mission, the orbiter flight path will allow high elevation (> 50 deg) passes for all of the continental U.S. and all of Europe.

STS-55 Details

The STS-55 mission is a 9 day mission with a low inclination orbit. This mission is the first spacelab module flight of 1993. It is designated SL-D2 and represents the second in a series of dedicated flights for Germany. The primary goals of this mission are to perform studies in materials and life sciences research.

SAREX configuration C was selected for this mission. See the table listed below. Configuration C includes 2M FM voice and 2M FM packet. Four of the seven STS-55 crew members are licensed. These include Commander Steve Nagel (N5RAW), Payload Commander Jerry Ross (N5SCW), German Payload Specialist Hans Schlegel (DG1KIH), and German Payload Specialist Ulrich Walter (DG1KIM). The primary voice callsign will be N5RAW. The packet radio callsign for this mission (and all missions in '93) is W5RRR-1. Nine U.S. and five foreign school groups have been selected for direct contacts on this flight. Since this will be a low inclination orbit, the teleconference bridge will be used for this mission for school contacts.

In addition to the U.S. SAREX ham gear in the Shuttle mid-deck, an additional ham radio station will be flown in the German spacelab module. This station, designated SAFEX (for Spacelab Amateurfunk-Experiment), includes a 2M FM downlink and a 70-cm FM uplink capability. A dual band (2M/70cm) external antenna, mounted on the German spacelab module, will be used for SAFEX contacts. Payload Specialists Schlegel and Walter expect to make a

few scheduled contacts with European schools with this equipment.

The externally mounted SAFEX antenna gives the SAREX team a unique opportunity -- to compare the performance of the U.S. SAREX window mounted antenna to an externally mounted antenna. A special antenna test is planned on Orbits 61 and 62 using the normal SAREX downlink frequency, 145.55 MHz. During Orbit 61 the shuttle crew will transmit using the SAREX window mounted antenna. On orbit 62 the crew will transmit using the externally mounted SAFEX antenna. Members of the Motorola Amateur Radio Club in Florida will conduct extensive field strength measurements during the two passes to evaluate system performance. In addition, individuals in the Southeastern U.S. are welcome to help participate in this test by taking signal strength readings of the received signal for both orbit passes in your area. If the shuttle is well above your horizon (>10 degrees) for both passes and antenna obscuration is not a problem at your QTH, we solicit your support. For more details, see page 42 of the February, 1993 QST. In addition, to participate in the test, request a SAREX Antenna Test Report Package from the ARRL Educational Activities Department, ARRL, 225 Main St., Newington, CT 06111. Please include a self-addressed stamped envelope.

[The AMSAT News Service (ANS) would like to thank Frank Bauer (KA3HDO) for this bulletin item.]

/EX

SB SAT @ AMSAT \$ANS-030.02
SAREX INFO FOR '93: PART II

HR AMSAT NEWS SERVICE BULLETIN 030.02 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 30, 1993 BID:\$ANS-030.02
TO ALL RADIO AMATEURS BT

KA3HDO Provides The Latest SAREX Information For '93: Part II

STS-56 Information

Ken Cameron (KB5AWP) will be the Commander for the STS-56 shuttle mission which has a planned liftoff of 5:50 UTC on March 23. This rare night launch from the Kennedy Space Center will place the space shuttle Discovery in a 57 degree (high inclination) orbit. The Atmospheric Laboratory for Applications and Sciences (ATLAS-2) spacelab payload is the second in a series of missions to measure the long-term variability in the total energy radiated by the Sun and study its interaction with the Earth's atmosphere. The first ATLAS flew on the STS-45 mission in March 1992 (also a SAREX flight). This Spacelab mission uses pallet-mounted hardware in the Shuttle payload bay to study the Earth's atmosphere and variables in the solar spectrum. Four of the five crew members are currently licensed. The fifth crew member, Steve Oswald, passed his exam and is waiting for his

callsign. The five crew members on this mission include Commander Cameron (KB5AWP), Pilot Steve Oswald, Mission Specialist Ken Cockrell (KB5UAH), Mission Specialist Mike Foale (KB5UAC) and Mission Specialist Ellen Ochoa (KB5TZZ). STS-56 will carry SAREX configuration D. Configuration D includes 2M FM voice, packet, SSTV and 70 cm ATV (receive only). The primary voice callsign for this mission will be KB5AWP. Since this is a high inclination orbit, direct school contacts will be planned.

STS-57 Details

STS-57 is a 7 day mission with a low (28.5 degree) inclination orbit. Liftoff is tentatively scheduled for April 28. The primary mission objective is to fly the first Spacehab middeck augmentation module and retrieve the European Retrievable Carrier deployed from Atlantis on the STS-46 mission in August 1992. Shuttle pilot Brian Duffy, who operated SAREX on STS-45 in March of last year, will be the control operator on the Space Shuttle Endeavour flight. Brian Duffy's callsign is N5WQW. STS-57 will fly SAREX in configuration C, 2M voice and packet. Since this will be a low inclination orbit, the teleconference bridge will be used on this mission for school contacts. Keplerian elements and additional information on this flight will be provided as the launch time draws near.

[The AMSAT News Service (ANS) would like to thank Frank Bauer (KA3HDO) for this bulletin item.]

/EX

SB SAT @ AMSAT \$ANS-030.03
SAREX INFO FOR '93: PART III

HR AMSAT NEWS SERVICE BULLETIN 030.03 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 30, 1993 BID: \$ANS-030.03
TO ALL RADIO AMATEURS BT

KA3HDO Provides SAREX Information For '93: Part III

SAREX Frequencies

The Shuttle uplink frequencies have changed somewhat since the last SAREX flight. As in the past, split Uplink/Downlink frequencies are being used for this mission with a primary, worldwide downlink frequency of 145.55 MHz. The Astronauts will not favor any of the uplink frequencies, so your ability to establish contact with the Shuttle crew will be somewhat the "luck of the draw." Notice that different uplink frequencies have been chosen for Europe and the rest of the World. Please remember that the crew will not be operating in a simplex mode, so DO NOT TRANSMIT ON THE DOWNLINK FREQUENCY 145.55 MHz!!

Information Bulletins

Several bulletin stations will be available, some around-the-clock, to provide up-to-the-minute SAREX information. These include the Goddard Space Flight Center ARC (WA3NAN) in Greenbelt, Maryland, the Johnson Space Center ARC (W5RRR) in Houston Texas, and the American Radio Relay League Station (W1AW) in Newington, Connecticut. W1AW will broadcast SAREX bulletins as part of its normal daily bulletin service. See the QST magazine for more details on frequencies and bulletin schedules. WA3NAN plans to operate around the clock during the entire mission, providing Keplerian Elements, SAREX operating schedules, frequency reminders, and other general SAREX information. In addition, WA3NAN will broadcast Live Space Shuttle air-to-ground audio throughout the mission. WA3NAN plans to use the following frequencies: 3.860 MHz, 7.185 MHz, 14.295 MHz, 21.395 MHz and 28.650 MHz on HF and on 147.45 MHz on VHF in the Washington D.C. area. W5RRR will provide news bulletins and answer questions on HF when operators are available. W5RRR plans to use the following frequencies: 3.850 MHz, 7.227 MHz, 14.280 MHz, 21.350 MHz and 28.400 MHz on HF and on 146.64 MHz on VHF in the Houston, TX area. In addition to the above sources, information will be disseminated world-wide via packet and on INTERNET using amsat.org.

Keplerian Elements

During the mission, orbit parameters can be obtained via packet radio, via INTERNET (on amsat.org), through the Goddard Amateur Radio Club's Shuttle Retransmissions, through bulletins from the ARRL's W1AW station, and via the JSC Radio Club Station, W5RRR. The pre-launch Keplerian elements for the STS-55 mission and for the STS-56 mission are given below. These have been generated by Gil Carman (WA5NOM) from the JSC ARC. If you do not have a satellite/Shuttle orbit tracking program, there are numerous tracking programs available from AMSAT or as public domain and are also available on numerous landline bulletin board systems throughout the world. For more information about these programs available, contact AMSAT Headquarters at (301) 589-6062.

QSLs

As with all SAREX flights, a special QSL card is planned for each SAREX mission. If you make a 2-way contact with the crew or hear the SAREX downlink, you qualify for a QSL card for that mission.

The IBM Amateur Radio Club of Boca Raton Florida has volunteered to act as the QSL manager for the STS-55 SAREX mission. For the STS-55 mission, please send your QSLs to:

IBM Amateur Radio Club/1993
P.O. Box 1328
Boca Raton, FL 33429-1328

On the outside of the envelope, please write STS-55 SWL or STS-55 QSL--2-

Way depending on whether you heard the downlink or made a two-way contact.

For all QSLs, it is essential that you include an SASE using a large (4 inch x 9.5 inch) envelope. If an SASE or sufficient IRCs are not included with your signal report you will not receive a QSL card. Please expect a lengthy (6-10 month) wait after the Shuttle mission to receive your QSL card. This wait is not due to our QSL manager volunteers. The development of a SAREX QSL card can be a very lengthy process. It is nearly one month before mission photos are available to the SAREX team. At this point, the card layout process can begin. Card layout, crew approval, and audio tape logging takes at least 2-3 months, sometimes longer. Card printing and shipment to the QSL manager takes approximately 2 months. In addition, QSL distribution usually takes approximately 2 months. Like other prized DX cards, please be patient for your card to arrive. Each SAREX QSL card has always proven itself to be worth the wait!

[The AMSAT News Service (ANS) would like to thank Frank Bauer (KA3HDO) for this bulletin item.]

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SB SAT @ AMSAT \$ANS-030.04
SAREX INFO FOR '93: PART IV

HR AMSAT NEWS SERVICE BULLETIN 030.04 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 30, 1993 BID: \$ANS-030.04
TO ALL RADIO AMATEURS BT

KA3HDO Provides SAREX Information For '93: Part IV

Mission	Launch	Length	Ham Crew	Inclination	Op. Modes
STS-55/SL-D2 Columbia	2/25	9 day	Steve Nagel N5RAW Jerry Ross N5SCW Hans Schlegel DG1KIH Ulrich Walter DG1KIM	28.5	FM Voice Packet
STS-56/ATLAS-2 Discovery	3/23	9 day	Ken Cameron KB5AWP Ken Cockrell KB5UAH Mike Foale KB5UAC Ellen Ochoa KB5TZZ	57	FM Voice Packet SSTV FSTV
STS-57/Spacehab Endeavour	4/28	7 day	Brian Duffy N5WQW	28.5	FM Voice Packet

STS-55 element set JSC-002

Launch: Feb 25 @ 15:20 UTC

STS-55

1 00055U	93056.68944922	.00120200	00000-0	36300-3	0	22	
2 00055	28.4697	216.9602	0003812	314.2100	45.8202	15.90487610	23

Satellite: STS-55

Catalog number: 00055

Epoch time: 93056.68944922 ===== (25 FEB 93 16:32:48.41 UTC)

Element set: JSC-002

Inclination: 28.4697 deg

RA of node: 216.9602 deg Space Shuttle Flight STS-55

Eccentricity: .0003812 Prelaunch Keplerian Elements

Arg of perigee: 314.2100 deg Launch: 25-FEB-93 15:20 UTC

Mean anomaly: 45.8202 deg

Mean motion: 15.90487610 rev/day W5RRR - G. L. Carman

Decay rate: 1.2020e-03 rev/day^2 NASA Johnson Space Center

Epoch rev: 2

STS-56 element set JSC-002

Launch: Mar 23 @ 5:50 UTC

STS-56

1 00056U	93 82.30325346	.00055200	00000-0	16200-3	0	28	
2 00056	57.0020	168.1447	0011289	286.7156	73.2672	15.91759473	24

Satellite: STS-56

Catalog number: 00056

Epoch time: 93082.30325346 ===== (23 MAR 93 07:16:41.10 UTC)

Element set: JSC-002

Inclination: 57.0020 deg

RA of node: 168.1447 deg Space Shuttle Flight STS-56

Eccentricity: .0011289 Prelaunch Keplerian Elements

Arg of perigee: 286.7156 deg Launch: 23-MAR-93 05:50 UTC

Mean anomaly: 73.2672 deg

Mean motion: 15.91759473 rev/day G. L. Carman

Decay rate: 5.52000e-04 rev/day^2 NASA Johnson Space Center

Epoch rev: 2

[The AMSAT News Service (ANS) would like to thank Frank Bauer (KA3HDO) for this bulletin item.]

/EX

SB SAT @ AMSAT \$ANS-030.05

SAREX INFO FOR '93: PART V

HR AMSAT NEWS SERVICE BULLETIN 030.05 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 30, 1993 BID: \$ANS-030.05
TO ALL RADIO AMATEURS BT

KA3HDO Provides SAREX Information For '93: Part V

Frequencies Chosen for 1993 Space Shuttle Missions

The following frequencies will be used for Shuttle Amateur Radio Experiment (SAREX) missions during 1993. These frequencies were chosen after much deliberation to minimize contention between SAREX operations and other 2M users. If you have any comments, please direct them to AMSAT via Frank Bauer (KA3HDO) at his callbook address or to the Educational Activities Department at ARRL Headquarters. The ARRL and AMSAT appreciate the cooperation of all amateurs in making the SAREX operations successful.

Most SAREX operations are split-frequency. One frequency is used for "downlink" (the astronauts transmit to Earth stations) and a separate frequency is used for the "uplink" (Earth stations transmit to the astronauts).

SAREX Voice Frequencies

The following frequencies are used for two-way voice communications with the Shuttle astronauts.

Downlink: 145.55 MHz Worldwide

Uplinks

Europe: 144.70, 144.75 and 144.80 MHz

Rest of world: 144.91, 144.93, 144.95, 144.97 and 144.99 MHz

Note: The crew will not favor any specific uplink frequency, so your ability to communicate with SAREX will be the "luck of the draw."

SAREX Packet Frequencies

The following frequencies are used for packet communications with the Shuttle.

Downlink: 145.55 MHz

Uplink: 144.49 MHz

For all operations, Earth stations should listen to the downlink frequency and transmit only when the Shuttle is in range and the astronauts are on the air. Listen for any instructions from the astronauts as to specific

uplink frequencies in use during the current pass. In addition, listen to the uplink frequencies before transmitting to avoid interference to other users.

Note: The first 1993 mission, STS-55, is scheduled to begin February 25. If the mission slips a few days beyond this date, it will coincide with the Phone weekend of the ARRL International DX Contest (March 6-7). Should STS-55 coincide with this contest weekend, Shuttle voice uplinks using the 144.91 to 144.99 MHz range will be curtailed DURING THE ENTIRE MISSION. If this is necessary, SAREX will operate voice using the following frequencies:

Modified SAREX Voice Frequencies

Use only if STS-55 mission coincides with ARRL International DX Contest March 6-7, 1993

Downlink: 145.55 MHz Worldwide

Uplinks

Europe: 144.70, 144.75 and 144.80 Mz

Rest of world: 144.49, and 144.47 MHz

Look for more specific information as the launch date draws closer.

/EX

SB SAT @ AMSAT \$ANS-030.07

AMSAT OPERATIONS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 030.07 FROM AMSAT HQ
SILVER SPRING, MD JANUARY 30, 1993 BID:\$ANS-030.07
TO ALL RADIO AMATEURS BT

AMSAT-NA Operations Net Schedule

AMSAT Operations Nets are planned for the following times. Mode B nets are conducted on A0-13 on a downlink frequency of 145.950 MHz and Mode J/L on a downlink of 435.970 MHz.

Date	UTC	Mode	Phs	NCS	Alt
14-Feb-93	0200	J	56	N7NQM	W5IU
22-Feb-93	0330	B	32	WB6LL0	W90DI
27-Feb-93	2300	B	82	WA5ZIB	WJ9F

Any stations with information on current events would be most welcome. In the unlikely event that either the NCS or the alternate do not call on frequency, any participant is invited to act as the Net Control.

Slow Scan Television on Oscar 13

SSTV sessions will be held on UTC Saturdays and Sundays:

Mode J Downlink 435.980 MHz
Mode B after J Downlink 145.960 MHz

OPS NETS will take priority, look for SSTV activity immediately after the Net. SSTVer's are invited to join the Net to make schedules at other times if desired.

/EX

Date: Tue, 2 Feb 1993 20:03:02 GMT
From: mvb.saic.com!unogate!news.service.uci.edu!usc.edu!howland.reston.ans.net!
spool.mu.edu!sdd.hp.com!hpscit.sc.hp.com!hplextra!hpl-opus!hpnmldla!
alanb@network.UCSD.EDU
Subject: circuit modeling
To: info-hams@ucsd.edu

In rec.radio.amateur.misc, f_speerjr@ccsvax.sfasu.edu writes:

>I'm just getting back into ham radio after a 10-year layoff. Looking at the
>mags, I read about software meant to model circuits. Can anyone tell me which
>package is the best? How good is it? How about rf circuits, antennas, etc? Any
>shareware?

The grandaddy of circuit modelling programs is SPICE, invented at UC Berkeley some years ago. There are a number of commercial versions available. I use the demo version of PSPICE. It is the same as the commercial version, but limits maximum circuit size. It is quite usable if you don't need complicated models or large circuits. And the price is right.

AL N1AL

Date: 3 Feb 93 07:13:32 GMT
From: news-mail-gateway@ucsd.edu
Subject: Daily Solar Geophysical Data Broadcast for 02 February
To: info-hams@ucsd.edu

!!BEGIN!! (1.0) S.T.D. Solar Geophysical Data Broadcast for DAY 033, 02/02/93
10.7 FLUX=128.3 90-AVG=135 SSN=071 BKI=4433 2231 BAI=014

```
BGND-XRAY=B5.2      FLU1=9.4E+05  FLU10=9.4E+03  PKI=4433 3332  PAI=015
    BOU-DEV=049,044,026,033,019,017,029,008  DEV-AVG=028 NT      SWF=00:000
    XRAY-MAX= C6.3 @ 0350UT      XRAY-MIN= B3.8 @ 2313UT      XRAY-AVG= B8.7
    NEUTN-MAX= +001% @ 2200UT      NEUTN-MIN= -003% @ 0020UT      NEUTN-AVG= -0.3%
    PCA-MAX= +0.2DB @ 0425UT      PCA-MIN= -0.2DB @ 0835UT      PCA-AVG= +0.0DB
BOUTF-MAX=55421NT @ 0403UT      BOUTF-MIN=55377NT @ 2006UT      BOUTF-AVG=55404NT
GOES7-MAX=P:+106NT@ 1845UT      GOES7-MIN=N:+000NT@ 0823UT      G7-AVG=+074,+035,+008
GOES6-MAX=P:+120NT@ 1812UT      GOES6-MIN=E:-006NT@ 2056UT      G6-AVG=+085,+005,+047
    FLUXFCST=STD:130,130,135;SESC:130,130,135 BAI/PAI-FCST=010,015,015/015,015,015
    KFCST=2233 3322 2344 4332 27DAY-AP=011,016 27DAY-KP=3333 3222 2324 3443
WARNINGS=*SWF
ALERTS=
!!END-DATA!!
```

Date: 3 Feb 93 00:59:15 GMT
From: eram!dave@midway.uchicago.edu
Subject: FM Broadcast SCA (was ?)
To: info-hams@ucsd.edu

In article <9301311319.AA23688@ucsd.edu>,
dwilson@s850.mwc.EDU (David L. Wilson) writes:

| >Conventionally, audio subcarriers show up at 67, 75, and 95 kHz.
|
| Uh....It is 92 kHz not 95 kHz.

Sigh - obviously there is no fixed standard, OK? In Australia at least one station (2SER-FM) uses both 65 (Muzak) and 91 kHz (BBC relay) ...

A tunable decoder is very useful; just a pot that varies the lock frequency of a PLL.

--
Dave Horsfall (VK2KFU) VK2KFU @ VK2RWI.NSW.AUS.OC
dave@esi.COM.AU ...munnari!esi.COM.AU!dave

Date: 3 Feb 93 06:49:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: Please subscribe Carl Gottsmann to Info-Hams, Tnx,& 73!
To: info-hams@ucsd.edu

Date: 2 Feb 93 19:34:45 EST
From: mvb.saic.com!unogate!news.service.uci.edu!usc.edu!howland.reston.ans.net!
sol.ctr.columbia.edu!eff!world!ksr!jfw@network.UCSD.EDU
Subject: QRP->VFO
To: info-hams@ucsd.edu

ag821@yfn.yzu.edu (Jeff Gold) writes:
>I recently purchased a MXM transmitter/receiver kit at
>a hamfest. The kit appears to be for 80meters (the TX crystals
>are in that range, but the capacitors aren't).

What do you mean "the capacitors aren't"? Capacitors alone do not determine frequencies; capacitors in combination with inductors do, and a given capacitor can (in principle, if not in practice) resonate with some inductor at any frequency you need.[1]

>I am thinking about building the kit for 30 or 40 meters. I
>noticed that Kanga US and Townsend Electronics, as well as
>624 kits have parts kits and boards for VFOs that will
>work up through 30 meters. I am new at building and don't
>understand all the circuit details YET. If you add a VFO, do
>you use the Variable capacitor for both the TX and RX.

If you use a single VFO, then the variable capacitor that tunes it will tune both the transmitter and the receiver. Sometimes there is provision for a separate adjustment (usually named "receiver incremental tuning") that gets switched in and out between transmit and receive, which may be an additional small variable capacitor or (usually, in inexpensive rigs) a potentiometer controlling the voltage on a voltage-variable capacitor. If you build a separate VFO for each, then each will have its own variable capacitor.

>It seems to me the rig would be a lot more usefull if I
>can use more than one freq. Does anyone have experience
>with this..

It certainly is handy to tune more than one frequency, but the "QRP frequencies" do serve as watering holes where lots of people (comparitively speaking, anyway) will be listening.

>I would appreciate comments on QRP band selection, what else
>is involved in adding a VFO (do I need to change any other
>parts of the TX/RCVR circuit, how will does a rig with only the
>QRP freq work as far as making QSOs).

I usually choose 30m, but this is mostly because it's a relatively easy band to build circuits for, and relatively uncrowded. (I do a LOT more soldering than operating, however (or did, when I had the space, and will

(I hope) when I again have the space))

I don't know what their circuit looks like; some circuits allow you to pretty much feed the VFO output into the crystal socket, other fail miserably if you do so.

Note that constructing a stable VFO will feel like a black art when you start trying it (I spent a few months doing little other than building VFOs just to come to grips with construction practices, component variations, and the like. I almost understand it now, sort of). One alternative is to use a "VXO" circuit, where you use a variable capacitor to "pull" the frequency of a crystal off of its marked value; on 30m, a typical crystal will usually pull 8-10kc before becoming unstable (depending on the crystal); 5 to 7 crystals will cover all of 10.1 to 10.15 (depending on how much overlap between them you want). Of course, at ~\$10 a pop, that adds up pretty fast.

John, WB7EEL

[1] Of course, trying to resonate a .1uF capacitor at 1GHz runs into the problems of parasitic inductance pretty quickly...

Date: 3 Feb 93 01:30:00 GMT

From: galileo.cc.rochester.edu!ub!acsu.buffalo.edu!ubvmsb.cc.buffalo.edu!
v111qheg@cs.rochester.edu

Subject: Why won't any Deleware station QSL?

To: info-hams@ucsd.edu

How come, after a good many CW and SSB QSO's has not one Del. station returned a QSL card request? Are not any of you proud of your call? :-)

73 de Peter KB2NMV

PSE QSL

End of Info-Hams Digest V93 #159
